

Application No. 10/724,266
Response dated April 11, 2007
Reply to Office action of October 12, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (withdrawn) An expression vector comprising: (a) a gene which codes for a protein/product of interest, functionally linked to a hamster-ubiquitin/S27a-promoter; and (b) a gene which codes for a fluorescent protein.
2. (withdrawn) The expression vector according to claim 1, comprising an amplifiable selectable marker gene.
3. (withdrawn) The expression vector according to claim 1, comprising one or more enhancers functionally linked to the promoter.
4. (withdrawn) The expression vector according to claim 1, further comprising an internal ribosomal entry site (IRES) which allows bicistronic expression of the gene which codes for the fluorescent protein, and of the gene which codes for the protein/product of interest.
5. (withdrawn) The expression vector according to claim 2, wherein the gene which codes for the fluorescent protein and the amplifiable selectable marker gene are located in one or in two separate transcription units.
6. (withdrawn) The expression vector according to claim 1, wherein the functional linking does not take place via intron sequences.
7. (withdrawn) The expression vector according to claim 1, wherein the amplifiable selectable marker gene codes for dihydrofolate-reductase (DHFR) or a fusion protein of the fluorescent protein and DHFR.

Application No. 10/724,266
Response dated April 11, 2007
Reply to Office action of October 12, 2006

8. (withdrawn) The expression vector according to claim 3, wherein the enhancer is a CMV or SV40 enhancer.
9. (withdrawn) The expression vector according to claim 1, further comprising at least one polyadenylation signal.
10. (withdrawn) An expression vector according comprising a multiple cloning site for the incorporation of a gene which codes for a protein/product of interest.
11. (withdrawn) A eukaryotic host cell transfected with an expression vector according to claim 2.
12. (withdrawn) A host cell according to claim 11, which is a mammalian cell.
13. (withdrawn) A host cell according to claim 11, which is a CHO cell.
14. (withdrawn) The host cell according to claim 11, additionally transfected with one or more vectors comprising one or more genes encoding one or more other proteins/products of interest and at least one other selectable marker.
15. (withdrawn) A process for preparing a heterologous gene product, comprising cultivating a host cell according to claim 11 under conditions which allow expression of the gene product, and isolating the gene product from the culture or culture medium.
16. (withdrawn) A process for preparing a heteromeric protein/product, comprising co-transfected the host cell according to claim 14 with expression vectors which code for different subunits of the heteromeric protein/product under conditions which allow expression of the heteromeric protein/product,

Application No. 10/724,266
Response dated April 11, 2007
Reply to Office action of October 12, 2006

and isolating the heteromeric protein/product from the culture or culture medium.

17.(withdrawn) The process according to claim 16, wherein the heteromeric protein is an antibody.

18.(withdrawn) The process according to claim 15, further comprising subjecting the host cell to one or more gene amplification steps in the presence of an amplifying agent.

19.(withdrawn) The process according to claim 18, wherein the amplifiable selectable marker is dihydrofolate reductase (DHFR) and the amplifying agent is methotrexate.

20.(withdrawn) The process according to claim 18, wherein the host cell is subjected to only one gene amplification step with methotrexate.

21.(withdrawn) The process according to claim 15, wherein the host cell is cultured in a serum-free culture medium.

22.(withdrawn) The process according to claim 15, wherein the host cell is cultivated in suspension culture.

23.(currently amended) ~~The A~~process for selecting a host cell which expresses a protein/product of interest comprising:

- (i) cultivating a population of eukaryotic host cells ~~according to claim 11~~ which have been transfected with an expression vector comprising:
 - (a) a gene which codes for a protein/product of interest, functionally linked to a hamster-ubiquitin/S27a-promoter; and
 - (b) a gene which codes for a fluorescent protein;

under conditions which allow expression of the protein/product of interest and of the fluorescent protein;

- (ii) isolating cell pools which achieve average specific protein/product productivities of more than 10 pg of recombinant protein/product expression per cell per day without gene amplification and
- (iii) identifying and/or selecting the cells host cell clones which show the highest expression levels of fluorescent protein.

24.(currently amended) The process according to claim 23, wherein selecting the cells-host cell clones comprises using a Fluorescence-Activated Cell Sorter (FACS).

25.(currently amended) The process according to claim 23, further comprising subjecting the selected host cells clones to one or more additional gene amplification steps in the presence of an amplifying agent.

26.(currently amended) The process according to claim 25, wherein the expression vector further comprises the amplifiable selectable marker is dihydrofolate reductase (DHFR) and the amplifying agent is methotrexate.

27.(new): The process according to claim 23, wherein the population of host cells is cultured in serum-free culture medium.

28.(new): The process according to claim 23, wherein the population of host cells is cultivated in suspension culture.

29.(new): The process according to claim 23, wherein the process further comprises the preparation of a heterologous gene product by

- (iv) cultivating a host cell under conditions which allow expression of the protein/product of interest and
- (v) isolating the gene product form the culture or culture medium.

Application No. 10/724,266
Response dated April 11, 2007
Reply to Office action of October 12, 2006

- 30.(new): The process according to claim 28, wherein the heterologous gene product is a heteromeric protein/product, whereby the host cell has been co-transfected with expression vectors which code for the different subunits of the heteromeric proteins/products.
31. (new): The process according to claim 29, wherein the heteromeric protein/product is an antibody.
- 32.(new): The process according to claim 23, wherein the host cell is a Chinese hamster ovary (CHO) cell.
- 33.(new): The process according to claim 28, wherein the host cell is a Chinese hamster ovary (CHO) cell.